REMARKS

Claims 9-16 are now in this case. Previous claims 6-8 have been canceled. All claims have been rejected.

Claims 6-8 were rejected under 35 U.S.C. Section 112 as failing to recite positive method steps. These claims have been canceled. Substitute claims 9-17 define the method inventions as sequences of positive method steps. Accordingly they meet the requirements of Section 112.

Claims 6-8 were rejected under 35 U.S.C. Section 102 as anticipated by United States Patent No. 4,597,028 issued to Yoshida. These rejections are believed inapplicable to the substitute claims.

It is well established that for a prior patent to anticipate a claimed invention, the patent must disclose each and every element of the claim.

In the present case, claim 9 is directed to a novel method of making a supercapacitor structure comprising the steps of laminating activated carbon fabric to collector foils to produce electrode subassemblies, disposing a porous separator membrane between the electrode subassemblies to form an assembly and then "heating the assembly under pressure to form a porous laminated assembly."

Yoshida is devoid of any teaching or suggestion of so forming a porous laminated assembly. The Examiner is correct that at Col. 14, lines 1-14 Yoshida writes of heating fabric in furnace supplied with gas, but this is to activate the fabric, not to laminate electrode subassemblies and a porous separator membrane by heating under pressure as claimed by applicant.

The Examiner also cites Col. 1, lines 31-34 for describing such lamination. But this excerpt merely refers to the use of a viscous paste. Such usage does not teach or suggest applicant's positively recited step of "heating the assembly under pressure to form a porous laminated assembly." Indeed, a careful reading of Yoshida will show that in every instance Yoshida simply states that the components are assembled. See, for example, Col. 8, line 50; Col. 12, line 23; Col. 12, line 65; Col. 16, line 59; and Col. 17, lines 22, 37, 48 and 56.

It is far from obvious to laminate the desired porous assembly by heating under pressure. Heat and pressure were believed likely to destroy the desired porosity. (See specification, P. 6, lines 16-30) Accordingly Yoshida does not anticipate claim 9 or the remaining claims dependent thereon.

In view of the foregoing it is submitted that claims 9-17 are now clear and definite and distinguish all cited art. Accordingly this application now fully complies with the provisions of 35 U.S.C. Sections 112 and 102 and is now in condition for allowance. Reconsideration and favorable action in this regard is therefore earnestly solicited.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Added claims 9-17:

9. A method of making a supercapacitor structure comprising positive and negative electrodes, a porous separator membrane and an electrolyte solution comprising the steps of:

laminating an activated carbon fabric to an electrically conductive positive current collector foil to produce a porous positive electrode subassembly;

laminating an activated carbon fabric to an electrically conductive negative current collector foil to produce a porous negative electrode subassembly;

disposing the porous separator membrane between the carbon fabric surfaces of the electrode subassemblies to form an assembly;

heating the assembly under pressure to form a porous laminated assembly; and

contacting the porous laminated assembly with electrolyte.

10. The method of claim 9 wherein heating the assembly under pressure comprises heating to temperature in the range 120° to 160° C under pressure.

11. The method of claim 9 wherein heating the assembly under pressure comprises heating under a pressure in the range 3×10^4 to 5×10^4 Pa.

12. The method of claim 9 wherein the assembly is heated under pressure by heated calendar rolling.

13. The method of claim 9 wherein the contacting the assembly with electrolyte comprises contacting the assembly with a non-aqueous electrolyte solution.

14. The method of claim 9 wherein the porous separator membrane comprises an ultra-high molecular weight micro-fibrillar polyolefin.

15. The method of claim 9 wherein the porous separator membrane comprises a polyetheylene with a micro-fibullar structure and sufficiently high molecular weight that it maintains porosity after being heated to surface temperatures in its melting point range.

16. The method of claim 9 wherein the positive current collector foil comprises an open mesh aluminum grid.

17. The method of claim 9 wherein the negative current collector foil comprises an open mesh copper grid.